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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/552,085 02/24/00 ISHIKAWA

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MM92/1003

EXAMINER

NGUYEN, L

ART UNIT

PAPER NUMBER

2816

DATE MAILED:

10/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/552,085	Applicant(s) ISHIKAWA ET AL.	
	Examiner Long Nguyen	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species II, claims 10-18 in Paper No. 6 is acknowledged.

Specification

2. The disclosure is objected to because there are numerous minor informalities throughout the specification. For example, on line 6 of page 2, "juncture" should be changed to --junction--; on line 10 of page 4, "Fig. 4" should be changed to --Fig. 7--; "J-FET 21" on lines 15 and 16 of page 6 should be changed to --J-FET 2-- etc. Applicant's cooperation is requested in correcting any further errors of which applicant may become aware in the specification.

Claim Objections

3. Claims 10 and 18 are objected to because of the following informalities: on lines 6-7 of claim 10, "discharges and discharges" should be changed to --charges and discharges--; on line 2 of claim 18, "an" should be changed to --said--.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 14, the recitations "said buffer circuit" and "said island region" on line 2 and line 3, respectively, are indefinite because they lack antecedent basis since the buffer

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circuit and the island region have not been claimed. It appears that claim 14 depends on claim 11 instead of claim 10, as claimed, and "said buffer circuit" should be changed to --said source follower circuit--.

With respect to claim 15, "high" is indefinite because it is not a positive recitation of the claim, i.e. it is not understood how high the impedance must be to meet the limitation of this claim. Also, the recitation "wherein the input impedance of said input stage circuit" is indefinite because it lacks clear antecedent basis.

Claims 16-18 are indefinite because they include the indefiniteness of claim 15.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 10-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowers (USP 4,675,561).

With respect to claim 10, Figures 6-7 of the Bowers reference disclose a circuit a semiconductor integrated circuit which includes: a pad (62) to which an input signal (V_{in}) is externally inputted; and a source follower circuit (FET2, I2) including a transistor (FET2) having a gate connected to the pad (62) and a source for producing an output signal. Note that the limitation "whereby said source follower circuit charges and discharges a parasitic capacitance created between said pad and a semiconductor substrate" is seen to be inherent in the operation of the Bowers's circuitry.

With respect to claim 11, it is seen in Figure 7 of the Bowers reference that the semiconductor integrated circuit including an island region (74) on the upper surface of the semiconductor substrate (76) containing impurities of a second conductivity type, and a pad formed on the island region via an oxide film; and wherein the semiconductor substrate contains impurities of a first conductivity type; and wherein the output terminal of the source follower circuit is connected to the island region.

With respect to claim 12, it is seen in Figure 7 that the island region (74) is surrounded with an isolation region containing impurities of a first conductivity type.

With respect to claim 13, it is seen in the Bowers reference that the first conductivity type is a P-type and the second conductivity type is an N-type (Figure 7 and Col. 5, lines 42-48).

Insofar as understood in claim 14, it is seen in Figure 6 of the Bowers reference that the output terminal (source of FET2) of the source follower circuit is connected to the island region by way of a metal conductor.

Insofar as understood in claim 15, it is seen in the Bowers reference that the integrated circuit (Figure 6) has high input impedance at the input of the circuitry.

With respect to claim 16, it is seen in Figure 6 that the input stage circuit includes an amplifier (FET2).

With respect to claim 17, it is seen in Figure 6 that the input stage circuit includes an FET transistor (FET2) integrated on the semiconductor substrate, the FET transistor having a gate connected to the pad.

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With respect to claim 18, it is seen in Figure 6 that the FET transistor (FET2) has a drain connected to a power source, and a source connected to the ground via a constant current source (I2) for providing the output signal.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directly to Long Nguyen whose telephone number is (703) 308-6063. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

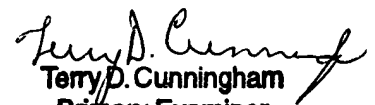
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached at (703) 308-4876. The fax number for this group is (703) 308-7722.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-0956.

September 29, 2001

LN

Long Nguyen
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Terry D. Cunningham
Primary Examiner